

Notice of Allowability

Application No.

10/708,733

Examiner

Stephen A. Holzen

Applicant(s)

FARNSWORTH, JEFFREY D.

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/18/2005.
2. ☒ The allowed claim(s) is/are 1-8, 11-24, 29-33 and 45.
3. ☒ The drawings filed on 22 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8, 11-24, and 29-33, drawn to an access stairway system, classified in class 244, subclass 118.5.
 - II. Claims 25-28, drawn to railing system, classified in class 182, subclass 106.
 - III. Claims 34, 36, 37, and 39 drawn to method of accessing an overhead area of an aircraft, classified in class 244, subclass 129.6.
 - IV. Claims 40-44, drawn to an overhead area access staircase system, classified in class 182, subclass 77.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination requires a hand railing for patentability. The subcombination has separate utility such as a deployable railing system in a permanent stairwell.

3. Inventions I and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used in a different method such as a method of descending from an overhead compartment (requiring the step of descending from the stair segments).

4. Inventions I and IV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination (IV) as claimed does not require the particulars of the subcombination (I) as claimed because the subcombination requires an automated deployment system. The subcombination has separate utility such as a telescoping ladder system.

5. Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP §

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806.05(e)). In this case the apparatus can be practice by a different method such as method of deploying a railing system.

6. Inventions II and IV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed where the subcombination requires a plurality of balusters. The subcombination has separate utility such as a deployable hand railing for a permanently mounted stairwell in an aircraft.

7. Inventions III and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can practice a materially different process, such as descending from an aircraft overhead compartment.

8. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

9. During a telephone conversation with Jeff Chap on 6/6/2005 a provisional election was made with traverse to prosecute claims 1-24,29-33. Claims 25-28,33-44 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

EXAMINER'S AMENDMENT

10. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeff Chap on 6/14/2005.

The application has been amended as follows:

Claim 1, line 4: the phrase "that are actuated" is changed to -that are rotatably actuated-.

Claim 1, line 14: the phrase "electrically operated, hydraulically" is changed to -electrically operated via a plurality of electrical motors coupled to each of said plurality of stair segments, hydraulically"

Claim 29, line 4: the phrase "that are actuated" is changed to "that are rotatably actuated"

Claim 29, line 14: the phrase “from electrically operated, hydraulically operated, and pneumatically operated “ is changed to -from hydraulically operated and pneumatically operated-.

Claims 25-28,34-39,40-44: These claims have been cancelled in favor of the allowed claims.

ADD NEW CLAIM 45: An aircraft comprising:

An aircraft overhead module; and

at least one overhead area access staircase system comprising;

a plurality of stair segments that are actuated relative to each other when deployed, folded onto each other when stowed, and configured to be in proximity with said aircraft overhead module, at least one of said stair segments contacting said aircraft overhead module when deployed, said stair segments comprising;

a plurality of step elements;

a plurality of support members coupled to said plurality of step elements; and

a non-linkage based system coupled to and altering the position of said plurality of stair segments via at least one operating technique selected from electrically operated, hydraulically operated and pneumatically operated.

Allowable Subject Matter

11. Claims 1-8, 11-24, 29-33 and 45 are allowed.
12. The following is an examiner's statement of reasons for allowance:
 - Union (936,681) does not disclose an electrical, pneumatic or hydraulic actuating system.
 - Carroll (3,144,224) does not disclose an electrically, pneumatically or hydraulically actuating system. Instead Carroll discloses a manual actuating system having an energy-dissipating device (#7).
 - Latimer et al (2005/0029042) does not disclose electrical, pneumatic or hydraulic actuating system. Instead Latimer discloses an energy-dissipating device that is used as a deployment assisting mechanism (#602).
 - Oliver et al (5,174,411) disclose a loft ladder that can be pivotably and slidably mounted to a loft opening, having a counterbalancing means, however does not disclose an electric, pneumatic or hydraulically actuated system.
 - Harmon (3,985,202) discloses a stairway adapted to assume an inclined operative position, that does not have a plurality of rotating stair segments, nor does Harmon disclose any folding, only that the entire stair system, translates and pivots upward into an attic.
 - Battenberg (6,886,661) discloses a first motorized deployment mechanism and a second motorized deployment mechanism that linearly displaces a lower ladder section. However uses a reel (107), a first chain and sprocket arrangement (108)

and a drive mechanism (106) to rotate the upper stair section upward. The lower stair section does not fold; it translates onto the upper section.

- Bessler (1,867,904) discloses an electric motor and reel that translates (telescoping) a lower stair segments onto the upper segment, and then rotating both of the upper and lower stair segments up into the attic. However does not rotate the segments relative to each other.
- Cole. et al (5,050,706) discloses a ceiling ladder, that is manually operated and manually rotated, that has railings and a potential energy device (60).
- Skolmik (3,901,353) disclose a disappearing stairway, mounted in a ceiling, however does not disclose any of an electric, pneumatic, or hydraulic operating system. Instead Skolmik discloses that the stairway is manually operated.
- Frank discloses a stair access for openings in ceiling and roofs having a counter balance #51 with two manually actuating stair segments
- Harmon (2,815,159) discloses a tri-folding stair segment, that has deployable railings and counter weights. However does not disclose any actuating system, electric, pneumatic or hydraulic coupled to and capable of altering an orientation of the stairs. Instead Harmon discloses dashpot that dissipates kinetic energy to prevent the ladder from crashing down on the user.
- Bigelow (2,455,157) discloses an emergency aircraft exit) that does not access any overhead area, and does not have any actuating system. Instead Bigelow discloses a rope ladder, with a frame and a wheel nut that allows a passenger to escape through the top of the fuselage.

- Murray (2,840,289) discloses an operating electric motor that drives a reel to collect a rope ladder and rungs. Murray does not disclose a plurality of electrical motor coupled to each stair segment, nor where the rungs are rotatably actuated.
- Battenberg (6,866,118) discloses a first motorized deployment mechanism and a second motorized deployment mechanism that linearly displaces a lower ladder section. However uses a reel (107), a first chain and sprocket arrangement (108) and a drive mechanism (106) to rotate the upper stair section upward. The lower stair section does not fold; it translates onto the upper section.
- Bessler (1,867,904) discloses a disappearing stairway having a telescoping stairwell and is based on a single motor that drives a reel and pulley system to translate the lower section of the stairwell into the upper portion of the stairwell and then to rotate the entire stairway into the attic.
- Bessler (1,811,708) discloses a disappearing stairway that has an electric motor that uses a linkage based system that rotates the lower two sections onto of a top stairway section, however does not disclose multiple electric motors on each stair portion as claimed.
- Harmon (2,931,456) discloses a non-folding, non-segmented ladder that rotates into the attic. Harmon does not disclose a plurality of stair segments rotatable to each other or a foldable stairway.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

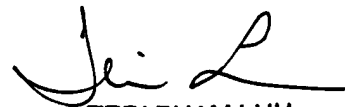
accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 571-272-6903. The examiner can normally be reached on M-F 7:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey E. Behrend can be reached on 571-272-6871. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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